

## THE EAR

A. Using a diagram or model of the ear, teach the students the names and functions of the parts of the ears. Students may be asked to make a model of the ear using everyday materials.

B. Using corkboard, cardboard or plywood, construct a jigsaw puzzle of the parts of the ear.

## "CELEBRATION OF SOUND" DAY

Sponsor an assembly and invite an audiologist or speech-language pathologist from the local Speech and Hearing Association to discuss "hearing" and "communication."

- Invite an audiologist to do hearing screenings.
- Display a model of the ear, either commercial or made by students, with a written explanation of how it works.
- Display earplugs and hearing aids with explanations.
- Display a chart of "Hearing Conservation Pointers."

#### THE LISTENING WALK

Part One — Announce to the class that they will be taking a walk around the school, around the block, or in the school building.

With no further instructions, proceed briskly. Return to the classroom and ask students to make a list of all the sounds they heard during the walk.

Part Two — Repeat the walk, but this time with the students instructed to listen for and remember all the sounds they

hear on the walk. Return to the classroom and make a second list. Compare (see handout on page 11).

Demonstrate pitch by blowing across the top of the bottles or by striking them with a metal rod or a pencil.

#### SPEED OF SOUND

Take the class to the playground or to a large open area. Using a cymbal, a bass drum, a metal garbage can lid or any large object that will generate sound when struck, position the class a distance from the noise producer (a student with a stick). As the object is struck, direct the students to move backward and pay attention to the

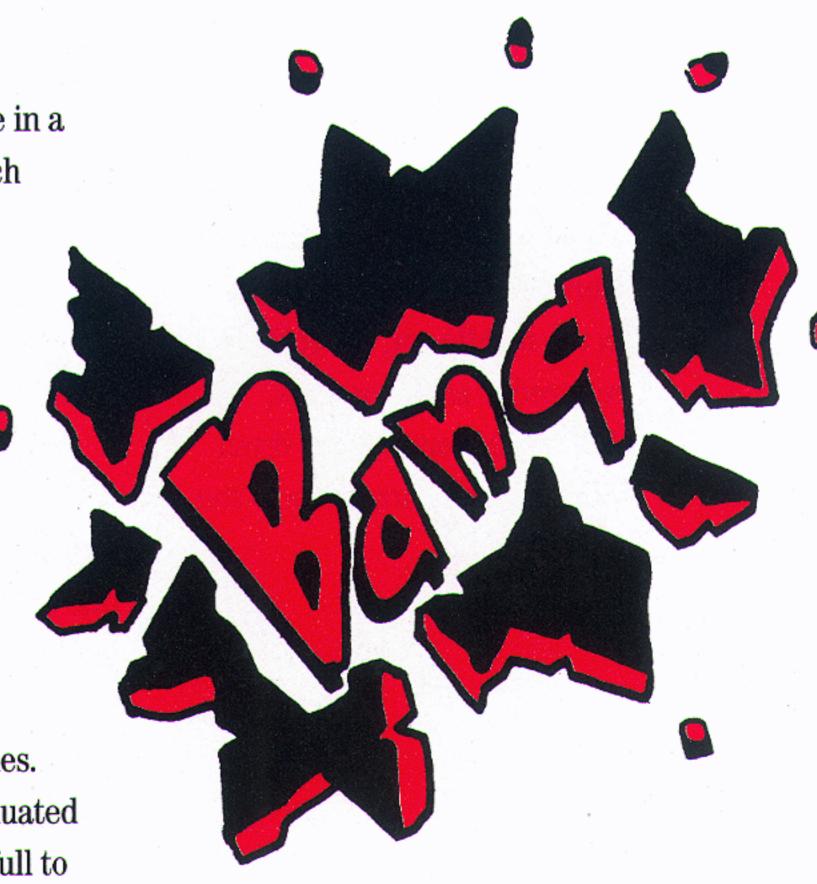
# THE SCIENCE CONNECTION

Students may participate in a sequence of lessons which demonstrate what sound is and how it works. Lessons could include activities on what causes sound, how sound carries, and how to create pitch and volume.



## SODA BOTTLE SCALES

Collect 8 glass soda bottles.
Fill the bottles with graduated amounts of water, from full to empty.



difference between what they see and what they hear.

#### VIBRATING RULERS

Place a ruler on a desk or table so that part of it hangs over the edge. Push down on the overhanging end of the ruler and release quickly. Listen for the sound. By adjusting the amount of overhang, the pitch is changed. By increasing and decreasing the pressure, volume or loudness is changed.

## **TUNING FORK TRICKS**

Using a tuning fork and a sound box, desk top or table top, demonstrate the relationship between vibrations and sound. Strike the tuning fork on the palm of the hand and place it on the sound box or desk top. Ask children to place their hands on the surface and feel the vibrations. As an alternative, the tuning fork can be struck and placed in a container of water.



#### **HEARING PROTECTION NEWSLETTER**

Students may be interested in producing a classroom newsletter or newspaper for parents, teachers, and other students using the theme "protecting your sense of hearing." Jobs to be assigned might include reporting, illustrating, layout, promotion, advertising, and distribution.

## TRIVIAL PURSUIT

Have students create a Trivial
Pursuit category entitled "NoiseInduced Hearing Loss." Divide the
class into two teams. Each team
member must submit a card with
six questions and the answers to
each question. Play as a board
game or in "spelling bee" style.

## **TEACHER-MADE WORD GAMES**

Following presentation and discussion of content about "Hearing Loss and the Environment," teachers may create crossword puzzles or word searches for students to complete. Children may be teamed and timed in doing the puzzle or word search as a competitive activity.

## **HEARING TESTING**

Invite an audiologist to demonstrate the functions and uses of an audiometer. Hearing screening may be explained and discussed.

#### **POSTER CONTEST**

As a classroom-vs-classroom, individuals within a classroom or as a school-wide event, have students design, draw, color or paint a poster of a scene which depicts an environmental noise pollution "danger." The posters should be captioned with an appropriate title or "slogan" warning against the dangers of noise pollution.

TWENTY MILLION AMERICANS

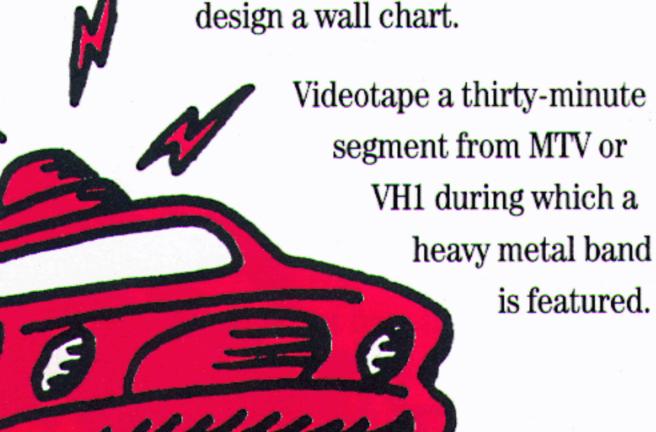
ARE REGULARLY EXPOSED TO

NOISE THAT CAN RESULT IN

HEARING LOSS

## NOISE POLLUTION DETECTIVE-TELEVISION SHOWS

Ask students to pick a television program and be a "Noise Pollution Detective." Students should list or chart situations or environmental sounds that they feel could cause hearing loss. Lists could be combined and used to design a wall chart.



View the tape and have students develop a list of examples of "poor hearing conservation."

Using the list of examples of "poor hearing conservation" developed from viewing heavy metal bands, have students write letters to the musical groups to inform them of the hazards and to provide them with a list of alternatives.

## HEARING HAZARDS COLLAGE

Either as an individual or group activity, students may create a collage of pictures from magazines which represent situations with potential for causing noise induced hearing loss.

## ENVIRONMENTAL NOISE POLLUTION BULLETIN BOARD

Have students select stories, headlines and pictures of current events from newspapers which can be used to create a bulletin board featuring everyday examples of environmental noise pollution.

## **PUBLIC SERVICE ANNOUNCEMENTS**

Have students create a series of one-minute Public Service Announcements (PSAs) about causes of hearing loss and alternative practices to prevent this loss. Students can practice reading their PSAs, recording them and presenting them to classmates. These PSAs can be presented as part of the "morning or afternoon announcements" in the school. Arrangements could also be made for their use on local radio stations.

## POETRY ANTHOLOGY

Have students write poems about the causes of "noise-induced" hearing loss and/or ways that people can use safer hearing practices. Results can be edited and collected into a class or school anthology. Selected poems could be published in the school newspaper.

#### NOISE POLLUTION TRIAL

Have students write a script and cast their own video of a student on trial for creating his own hearing loss. His defense is based on the reasoning that "the environment and society made it happen." Cast may include judge, lawyers and witnesses. Witnesses can represent a variety of "environmental sounds." Other students constitute a jury. The verdict may be used as the beginning point for general discussion.

## **HEARING CONSERVATION RAP**

Have students write and produce their own "rap" video about "good hearing conservation." Costuming, choreography, taping and other production activities should be done by students. Other classes may be invited to view the final taped production.